

We claim:

1. A lubricious coating for a medical device having a flexible surface, the coating comprising a substantially continuous layer of polymeric material on the flexible surface of the medical device, the layer having a thickness between 0.5 microns and 0.9 microns, wherein the polymeric material is polymerized by vapor deposition and wherein the polymeric material is parylene-N.

2. The lubricious coating of claim 1 wherein the medical device is an elastomeric septum and wherein the coating completely covers the exterior surface of the septum.

3. The lubricious coating of claim 1 wherein the medical device is a septum and wherein the coating covers only a top surface of the septum.

4. A lubricious coating for a medical device having a flexible surface comprising a layer of polymeric material on the flexible surface of the medical device having a thickness between 0.2 and 1.0 microns.

5. The lubricious coating of claim 4 wherein the polymeric material is hydrophobic, hydrophilic, aliphatic or aromatic.

6. The lubricious coating of claim 5 wherein the polymeric material has a thickness between 0.5 and 0.9 microns.

7. The lubricious coating of claim 6 wherein the polymeric material has a thickness of about 0.79 microns.

8. The lubricious coating of claim 6 wherein the polymeric material is polymerized by vapor deposition.

9. The lubricious coating of claim 8 wherein the polymeric material is one of the group of di-paraxylene, poly-(p-xylene), polyvinylpyrrolidone, and polytetrafluoroethylene.

10. The lubricious coating of claim 4 wherein the polymeric material is parylene-N.

11. The lubricious coating of claim 4 wherein the polymeric material is one of the group of parylene-C or parylene-D.

12. The lubricious coating of claim 4 wherein the polymeric material is one of the group of a fluorocarbon or a pyrolyzed polymer film.

13. A lubricious coating for a septum used in a needleless luer access connector, the septum having at least one flexible surface, the coating comprising a substantially continuous layer of polymeric material on the at least one flexible surface of the medical device, the layer having a thickness between 0.2 and 1.0 microns, and wherein the polymeric material is one of the group of di-paraxylene, poly-(p-xylene), polyvinylpyrrolidone, and polytetrafluoroethylene.

14. The lubricious coating of claim 13 wherein the coating covers the entire exterior surface of the septum and wherein the septum is unslit.

15. The lubricious coating of claim 13 wherein the septum has a top surface and the coating covers only the top surface.

16. The lubricious coating of claim 13 wherein the layer has a thickness between 0.5 and 0.9 microns.

17. The lubricious coating of claim 13 wherein the material is parylene-N.

18. The lubricious coating of claim 16 wherein the material is parylene-N.

19. The lubricious coating of claim 17 wherein the coating covers the entire exterior surface of the septum.

20. The lubricious coating of claim 13 wherein the material is parylene-N, the layer has a thickness about 0.79 microns, the coating covers the entire exterior surface of the septum and the septum is unslit.